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The temperature dependence of the dispersion forces enters in two ways in the theory: The first is in the values of the Matsubara frequencies; the second is in the temperature dependence of the dielectric functions or polarizabilities. After reading Ref. [7] of the original article we understood that the effect of the temperature dependence of the dielectric function of graphene was negligible. However, this is true for all Matsubara frequencies but for the \( n = 0 \) frequency, as was kindly pointed out by Gómez-Santos [1]. At finite temperature the thermalized electrons and holes lead to a diverging dielectric function at zero frequency. This affects the \( n = 0 \) term of the transverse magnetic contribution. On page 4 just before Fig. 3 we stated: “Note that the asymptote for the total result is somewhat smaller than half the ideal metal asymptote. It would be one half of the ideal metal result if the static polarizability were infinite.” Now the static polarizability is infinite so the asymptote is half the ideal metal asymptote. This affects Figs. 3, 10, and 15. Thus, these figures should be replaced by the new versions given here. The figures also confirm that undoped graphene is a system where finite temperature effects appear at shorter separations than usually expected as was proposed by Gómez-Santos [2]. In a forthcoming publication [3] we will investigate the full effect of the temperature dependent dielectric function of undoped graphene.

To summarize, in the original article we assumed that one could safely use the zero-temperature version of the polarizability for undoped graphene. In the calculation we summed over 1000 Matsubara frequencies. The zero-temperature version can be used for all those frequencies except for one, viz., the one at zero frequency. We made the mistake to use it also for zero frequency. That term in the summation becomes increasingly important with increasing separation and dominates the asymptote. This error affects neither the doped-graphene results nor the zero-temperature results. It affects the room-temperature large-separation asymptotes for undoped graphene. The corrected values for large separation are half the values for two ideal metal half spaces. Apart from this point the conclusions are not affected.